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L8   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:198173  HCAPLUS  Full-text
DOCUMENT NUMBER:          140:247085
TITLE:                    Selective phosphodiesterase 9A inhibitors for the
                          improvement of cognitive processes
INVENTOR(S):              Boss, Frank-Gerhard; Erb, Christina
                          ; Hendrix, Martin; Van Kampen, Marja
                          ; Wunder, Frank
PATENT ASSIGNEE(S):       Bayer AG, Germany
SOURCE:                   Ger. Offen., 17 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     DE 10238722          A1    20040311    DE 2002-10238722       20020823
     CA 2496292           A1    20040401    CA 2003-2496292        20030811
     WO 2004026286        A2    20040401    WO 2003-EP8880         20030811
     WO 2004026286        A3    20040603
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003258597        A1    20040408    AU 2003-258597         20030811
     EP 1534285           A2    20050601    EP 2003-797233         20030811
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     JP 2006501272        T     20060112    JP 2004-536933         20030811
     US 20060100222       A1    20060511    US 2005-525119         20051014
PRIORITY APPLN. INFO.:                      DE 2002-10238722    A  20020823
                                            WO 2003-EP8880      W  20030811
AB   The invention discloses the use of selective phosphodiesterase 9A inhibitors
     for the production of drugs for the improvement of perception, concentration,
     cognitive processes, learning and/or memory.  Preparation and activity of
     pyrazolopyrimidinone derivs. is included.
IT   9068-52-4, CGMP phosphodiesterase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (isoform 9A; phosphodiesterase 9A inhibitors for improvement of
        cognitive processes)
RN   9068-52-4  HCAPLUS
CN   Phosphodiesterase, guanosine cyclic 3',5'-phosphate  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT   7665-99-8, Cyclic GMP
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (phosphodiesterase 9A inhibitors for improvement of cognitive
        processes)
RN   7665-99-8  HCAPLUS
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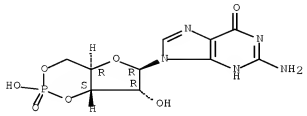
CN Guanosine, cyclic 3',5'-(hydrogen phosphate) (CA INDEX NAME)

Absolute stereochemistry.



IT 385271-01-2, GenBank AF056490
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(phosphodiesterase 9A inhibitors for improvement of cognitive processes)
RN 385271-01-2 HCAPLUS
CN DNA (human gene PDE8A adenosine cyclic 3',5'-phosphate phosphodiesterase isoform 8A C-terminal fragment-specifying cDNA plus 3'-flank) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 667400-78-4P 667400-79-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(phosphodiesterase 9A inhibitors for improvement of cognitive processes)
RN 667400-78-4 HCAPLUS
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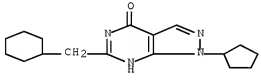

RN 667400-79-5 HCAPLUS
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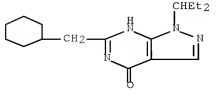
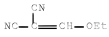


IT 123-06-8 30923-92-3, Cyclopentylhydrazine
30924-29-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphodiesterase 9A inhibitors for improvement of cognitive processes)
RN 123-06-8 HCAPLUS
CN Propanedinitrile, 2-(ethoxymethylene)- (CA INDEX NAME)



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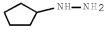
CN Hydrazine, cyclopentyl- (CA INDEX NAME)



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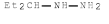
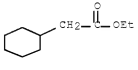
CN Hydrazine, (1-ethylpropyl)- (CA INDEX NAME)



IT 5452-75-5P 21253-94-1P 30929-67-0P
666235-33-2P 666235-34-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(phosphodiesterase 9A inhibitors for improvement of cognitive processes)
RN 5452-75-5 HCAPLUS
CN Cyclohexaneacetic acid, ethyl ester (CA INDEX NAME)



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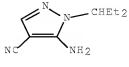

RN 30929-67-0 HCAPLUS
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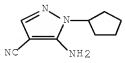

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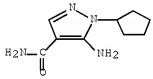
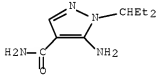


RN 666235-34-3 HCAPLUS
CN 1H-Pyrazole-4-carboxamide, 5-amino-1-(1-ethylpropyl)- (CA INDEX NAME)



IT 669030-83-5, 1: PN: DE10238722 SEQID: 1 unclaimed DNA
RL: PRP (Properties)
(unclaimed nucleotide sequence; selective phosphodiesterase 9A inhibitors for the improvement of cognitive processes)
RN 669030-83-5 HCAPLUS
CN 1: PN: DE10238722 SEQID: 1 unclaimed DNA (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

DISPLAYS OF REQUESTED COMPOUNDS

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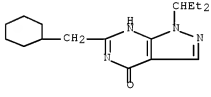
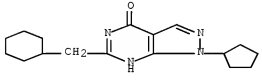
L9 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 667400-79-5 REGISTRY
ED Entered STN: 25 Mar 2004
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(cyclohexylmethyl)-1-(1-ethylpropyl)-1,5-dihydro- (CA INDEX NAME)
MF C17 H26 N4 O
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
ED Entered STN: 25 Mar 2004

L9 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN
RN 667400-78-4 REGISTRY
ED Entered STN: 25 Mar 2004
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(cyclohexylmethyl)-1-cyclopentyl-1,5-dihydro- (CA INDEX NAME)
MF C17 H24 N4 O
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)
ED Entered STN: 25 Mar 2004

RESULTS FROM REGISTRY AND CAPLUS
(Compounds were searched by their Reg Numbers and also by structure searches.)

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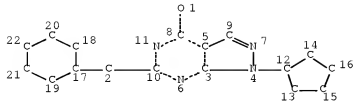

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NUMBER OF NODES IS  22

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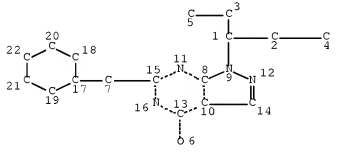

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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS  22

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L19            2 SEA FILE=HCAPLUS ABB=ON  L10 OR L18

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L19  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2004:198173  HCAPLUS  Full-text
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DOCUMENT NUMBER: 140:247085
TITLE: Selective phosphodiesterase 9A inhibitors for the improvement of cognitive processes
INVENTOR(S): Boss, Frank-Gerhard; Erb, Christina; Hendrix, Martin; Van Kampen, Marja; Wunder, Frank
PATENT ASSIGNEE(S): Bayer AG, Germany
SOURCE: Ger. Offen., 17 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10238722	A1	20040311	DE 2002-10238722	20020823
CA 2496292	A1	20040401	CA 2003-2496292	20030811
WO 2004026286	A2	20040401	WO 2003-EP8880	20030811
WO 2004026286	A3	20040603		
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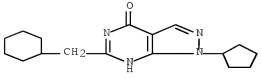
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003258597	A1	20040408	AU 2003-258597	20030811
EP 1534285	A2	20050601	EP 2003-797233	20030811
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006501272	T	20060112	JP 2004-536933	20030811
US 20060100222	A1	20060511	US 2005-525119	20051014
PRIORITY APPLN. INFO.:			DE 2002-10238722 A	20020823
			WO 2003-EP8880 W	20030811

AB The invention discloses the use of selective phosphodiesterase 9A inhibitors for the production of drugs for the improvement of perception, concentration, cognitive processes, learning and/or memory. Preparation and activity of pyrazolopyrimidinone derivs. is included.

IT 667400-78-4P 667400-79-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(phosphodiesterase 9A inhibitors for improvement of cognitive processes)

RN 667400-78-4 HCAPLUS

CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(cyclohexylmethyl)-1-cyclopentyl-1,5-dihydro- (CA INDEX NAME)



RN 667400-79-5 HCAPLUS
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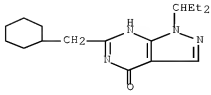

L19 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:177919 HCAPLUS Full-text
DOCUMENT NUMBER: 140:235735
TITLE: Preparation of pyrazolopyrimidines as phosphodiesterase PDE9A inhibitors.
INVENTOR(S): Hendrix, Martin; Boess, Frank-Gerhard; Burkhardt, Nils; Erb, Christina; Tersteegen, Adrian; Van Kampen, Marja
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 28 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10238724	A1	20040304	DE 2002-10238724	20020823
CA 2496308	A1	20040401	CA 2003-2496308	20030813
WO 2004026876	A1	20040401	WO 2003-EP8979	20030813
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EP 1534713	A1	20050601	EP 2003-797239	20030813
EP 1534713	B1	20060111		
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US 20060111372	A1	20060525	US 2005-524956	20051215
PRIORITY APPLN. INFO.:			DE 2002-10238724 A	20020823
			WO 2003-EP8979 W	20030813

OTHER SOURCE(S): MARPAT 140:235735
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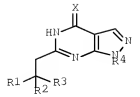
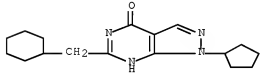


I

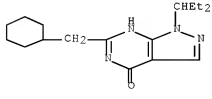
AB Title compds. [I; R1 = OH, (substituted) alkyl, alkoxy, CO2R5, CONR6R7; R5 = alkyl; R6, R7 = H, aryl, alkyl; NR6R7 = 4-10 membered heterocycle; R2 = H, alkyl, alkoxy; R3 = H, alkyl; R4 = pentan-3-yl, C4-6 cycloalkyl; X = O, S], were prepared Thus, 5-amino-1-cyclopentyl-1H-pyrazole-4-carboxamide (preparation given), Me cyclohexylacetate, and NaH were refluxed 18 h in EtOH to give 31% 6-cyclohexylmethyl-1-cyclopentyl-1,5-dihydro-4H-pyrazolo[3,4-d]pyrimidin-4-one. The latter inhibited PDE9A with IC50 = 5 nM.

IT 667400-78-4P 667400-79-5P 667870-22-6P
667870-23-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrazolopyrimidines as phosphodiesterase PDE9A inhibitors.)

RN 667400-78-4 HCAPLUS
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(cyclohexylmethyl)-1-cyclopentyl-1,5-dihydro- (CA INDEX NAME)



RN 667400-79-5 HCAPLUS
CN 4H-Pyrazolo[3,4-d]pyrimidin-4-one, 6-(cyclohexylmethyl)-1-(1-ethylpropyl)-1,5-dihydro- (CA INDEX NAME)



RN 667870-22-6 HCAPLUS
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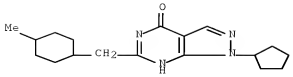

RN 667870-23-7 HCAPLUS
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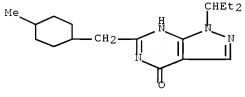

SEARCH HISTORY

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     (FILE 'HOME' ENTERED AT 17:02:24 ON 04 APR 2008)

     FILE 'HCAPLUS' ENTERED AT 17:02:36 ON 04 APR 2008
                  E BOSS FRANK GERHARD/AU
L1             2 SEA ABB=ON  "BOSS FRANK GERHARD"/AU
                  E ERB CHRISTINA/AU
L2            23 SEA ABB=ON  "ERB CHRISTINA"/AU
                  E HENDRIX MARTIN/AU
L3            78 SEA ABB=ON  "HENDRIX MARTIN"/AU
                  E KAMPEN MARJA/AU
                  E VAN KAMPEN MARJA/AU
L4            19 SEA ABB=ON  "VAN KAMPEN MARJA"/AU
                  E WUNDER FRANK/AU
L5            50 SEA ABB=ON  "WUNDER FRANK"/AU
L6             1 SEA ABB=ON  L1 AND L2 AND L3 AND L4 AND L5
                  SELECT RN L6 1

     FILE 'REGISTRY' ENTERED AT 17:04:25 ON 04 APR 2008
L7            14 SEA ABB=ON  (123-06-8/BI OR 21253-94-1/BI OR 30923-92-3/BI OR
                  30924-29-9/BI OR 30929-67-0/BI OR 385271-01-2/BI OR 5452-75-5/B
                  I OR 666235-33-2/BI OR 666235-34-3/BI OR 667400-78-4/BI OR
                  667400-79-5/BI OR 669030-83-5/BI OR 7665-99-8/BI OR 9068-52-4/B
                  I)

     FILE 'HCAPLUS' ENTERED AT 17:04:32 ON 04 APR 2008
L8             1 SEA ABB=ON  L6 AND L7

     FILE 'REGISTRY' ENTERED AT 17:07:10 ON 04 APR 2008
L9             2 SEA ABB=ON  (667400-78-4 OR 667400-79-5)/RN

     FILE 'HCAPLUS' ENTERED AT 17:08:09 ON 04 APR 2008
L10            2 SEA ABB=ON  L9

     FILE 'REGISTRY' ENTERED AT 17:08:31 ON 04 APR 2008
L11              STRUCTURE 667400-78-4
L12            0 SEA SSS SAM L11
L13            2 SEA SSS FUL L11
L14              STRUCTURE 667400-79-5
L15            0 SEA SSS SAM L14
L16            2 SEA SSS FUL L14
L17            4 SEA ABB=ON  L9 OR L13 OR L16

     FILE 'HCAPLUS' ENTERED AT 17:10:11 ON 04 APR 2008
L18            2 SEA ABB=ON  L13 OR L16
L19            2 SEA ABB=ON  L10 OR L18

     FILE HOME

     FILE HCAPLUS

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FILE LAST UPDATED: 3 Apr 2008 (20080403/ED)

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DICTIONARY FILE UPDATES: 3 APR 2008 HIGHEST RN 1012038-13-9

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